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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,109	10/24/2000	John McPherson	1259	1597

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EXAMINER

PHAM, BRENDA H

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 08/15/2003

*6*

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/695,109

Applicant(s)

MCPHERSON, JOHN

Examiner

Brenda Pham

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

### DETAILED ACTION

1. Claims 1-26 have been examined.

#### *Claim Objections*

2. Claims 1, 3, 4, 14, 16, 17, 19 are objected to because of the following informalities: claim 1, lines 6, 8, 10, 12; claim 3, line 16; claim 4, line 18; claim 6, line 24; claim 14, line 24, 26, 2, 4; claim 16, line 9; claim 17, line 11; claim 19, line 19, the word "pubic" should be corrected to --public--. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 8-12, 14, 15, 21-25 are rejected under 35 USC 102(b) as being anticipated by **Tsuchiya et al**, "Extending the IP Internet Through Address Reuse", ACM SIGCOMM Computer communication Review, pgs 16-33.

-Regarding claims 1, 2, 8-10, 14, 15, 21-23, **Tsuchiya et al** discloses a method for operating a computer system to respond to a domain name service query for a public address of a private network host, the method comprising the steps of: receiving the domain server query from a requesting host for the public address of the private network host (When stub A host 42.33.96.5 wishes to exchange packets with stub B host 42.81.13.22 ("al.nxb.com"), it send a Domain Name System (DNS) query to the DNS in stub B, page 17, paragraph 6, lines 1-2); sending a request to a network

address translator for the public address of the private network host (DNS would then send a query to Nat asking to have an address assigned, page 17, paragraph 6, lines 4); receiving a reply from the network address translator containing the public address of the private network host (Nat find an unassigned address in its pool, 128.76.28.4, and returns it to DNS, page 18, paragraph 1, line 1); and sending the public address of the private network host to the requesting host (page 17, paragraph 6 and page 18, paragraph 1, lines 1-2 and figure 2).

-Regarding claims 11, 12, 24 and 25, **Tsuchiya et al** further teaches sending a time period (TTL) in which the public address of the private network host is valid (page 23, paragraph 1).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-6, 16-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Tsuchiya et al**, "Extending the IP Internet Through Address Reuse", ACM SIGCOMM Computer communication Review, pgs 16-33.

-Regarding claims 3-6, 16-19, as explained above in the rejection statement of claims 1 and 14, **Tsuchiya** discloses all the claim limitations recited in claims 1 and 14 (parent claims).

**Tsuchiya** further teaches receiving a time-out message from the network address translator for the public address of the private network host, ("When the assignments are returned to the DNS server, they have expiration times associated with them...If the DNS servers choose to cache the assignment, they must remove the cache entry by the shortest expiration time." (Page 26, paragraph 4).

**Tsuchiya** does not specifically teach updating an address data structure in response to receiving the public address of the private network host. This claim limitation is inherently included in Paul et al. Update data structure in DSN cache is necessary to reflect a newly assigned globally unique IP address along with a length of time assigned by DNS server to the host or by remove the globally unique IP address from the DSN server after the Time-to-Live has expired.

Update an address data structure is also well known and obvious to those having ordinary skill in the art because the limited set of globally unique IP addresses are shared by the hosts in the routing domain and, therefore, the mappings between the globally unique IP address and the local IP address change over time depending on which hosts are communicating over the Internet at any given time, it is important that DNS server update the address data structure as changes occur to the respective NAT translation tables.

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement the step of updating an address data structure in response to receiving the public address of the private network host in **Tsuchiya**.

7. Claims 7, 13, 20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tsuchiya et al**, "Extending the IP Internet Through Address Reuse", ACM SIGCOMM Computer communication Review, pgs 16-33, in view of **Srisuresh et al** (US 6,058,431).

-Regarding claims 7, 13, 20 and 26, as explained above in the rejection statement of claims 1 and 14, **Tsuchiya** discloses all the claim limitations recited in claims 1, 8, 14 and 21 (parent claims).

Although **Tsuchiya** does not teach wherein the request to the network address translator is in a Simple Network Management Protocol format. However, the above claimed feature is well known in the art and discloses by **Srisuresh et al**, in according to column 3, lines 59-67. Simple Network Management Protocol is the most common method by which network management applications can query a management agent.

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to send a request to a network address translator using Simple Network Management Protocol format.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,058,431 Srisuresh et al discloses system and method for network address translation as an external service in the access server of a service provider.

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

fax to:

(703) 872-9314, (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121  
Crystal Drive, Arlington VA., Sixth Floor (Receptionist)

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (703) 308-0148. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (703) 305-4366.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Brenda Pham  
July 23, 2003

